

Demineralization Potential of Qat Extracts at Composite Restoration Interface

Abstract

Objective: To evaluate the demineralization potential of qat extracts at composite restoration interface. **Methods:** Class V cavities were prepared on the buccal surface of thirty extracted sound premolars and were restored with a nanohybrid composite (Grandio, VOCO, Germany). Specimens were subsequently coated with nail varnish exposing 2mm of enamel around the restoration margin. The specimens were divided into three equal groups of 10 and were then immersed in acid gel and qat extracts (10% and 20%) for 4 weeks. All specimens were removed and washed using deionized water and later examined by direct vision and stereomicroscope prior to sectioning. Specimens were then immersed in distilled water for 24 hours, following which the sections were examined under polarized light microscope and demineralized area was measured as outer and wall lesion in the coronal and cervical part of restoration using image analyzer software (Image-Pro Version 4.5). Data were subjected to One-way MANOVA. **Results:** All specimens immersed in acid gel and qat extracts (10% and 20%) exhibit demineralization at the restoration interface. The One-way MANOVA also indicated significant differences between the three groups on the different restoration interface ($P < .05$) and Tukey multiple comparison test was also performed as illustrated in the table below. **Conclusion:** 10% and 20% qat caused significantly lower demineralization at restoration interface compared to acid gel. This study was supported by a research grant from University of Malaya, P0218_2007a.

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Journal:	Journal of Dental Research
Year:	2008

Keywords :

Demineralization; Qat Extracts; Composite; Restoration Interface; SELF-REPAIR; CULTURE-CONDITIONS; COMPOSITE RESIN; DENTAL PULP STEM CELL; FUNCTIONALLY GRADED DESIGN; MULTI LAYERED POST; FUNCTIONALLY GRADED DENTAL POST; SOFT SKILLS; CLINICAL PAIRING; DENTAL PULP STROMAL CELLS; LONG-TERM EXPANSION

Please cite as :

AL-ALIMI, K., ABU KASIM, N. H. & AHMAD, R. 2008. **Demineralization Potential of Qat Extracts at Composite Restoration Interface.** *Journal of Dental Research.*

URL :

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